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10/597,112	08/15/2006	Takashi Tanaka	P30270	6348

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GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER	
LABBEES, EDNY	
ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
pto@gbpatent.com

Office Action Summary	Application No.	Applicant(s)	
	10/597,112	TANAKA, TAKASHI	
	Examiner	Art Unit	
	EDNY LABBEES	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status Of Claims

1. In the remarks filed 10/14/2008, claims 8 and 9 has been newly added and no claims has been canceled. Therefore, claims 1-9 are currently pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lareau et al. (US 6,972,682) [**first embodiment**] in view of Lareau et al. [**different embodiment**] and further in view of Bledsoe (US 5,742,237).

Regarding Claim 1, Lareau discloses *Monitoring And Tracking Of Assets By Utilizing Wireless Communications* that has the following claimed limitations:

The claimed system for location recognition using IC tags, wherein an interrogator makes a first communication with multiple IC tags in a communication area A by radio and at the same time, one of said multiple IC tag makes a second communication with other IC tags existing in a communication area B (<A) by probe signals is met by the asset monitoring system (100) that includes at least a first

monitoring station (RMS) (150) that includes a wireless transceiver communicating with various assets dispersed throughout the facility wherein the tags (110,120,130) are coupled to the various assets. Each tag is configured to wirelessly communication with other tags and any RMS within a determined proximity (See Col. 6 lns 20-50). In addition, based on the illustrations of figure 2, examiner interprets the figure as the RMS (150) communication with the tags (110,120,130) in an area A. The tags communicate with each other in an area B and as shown in figure 2, area B, wherein the tags communicates with each other is less than area A.

Claimed first responder that responds with own information X to the interrogator is met by the system (100) that facilitates communication from the tag (110) to the RMS (150) only after the RMS (150) has requested a communication (See Col. 7 lns 3-7) wherein the tag (110) inherently incorporates a responder means, since the tag (110) communicates with the RMS (150) after communication has been requested; claimed transmitter that sends said probe signals to the other IC tags when own information is specified by the interrogator and a receiver that receives a probe signal sent out by one IC of the other IC tags whose information is specified by the interrogator iis met by the system of Lareau wherein the tags relay communication with other tags in the facility (See Col. 7 lns 7-21). If the tags relay communication with other tags in the facility, it is inherent that the tag(s) must include a transmission and reception means (e.g. transmitter/receiver/transceiver) in order to perform that function.

This embodiment of Lareau do not specifically disclose a storage that stores information Y of the one IC tag of the other IC tags specified as a source IC tag in a

memory when reception strength of said probe signal is more than a predetermined level, and, a second response means for responding the information Y of the source IC tag stored in the memory to the interrogator. However, Lareau discloses in a different embodiment, wherein a wireless RFID tag (400) is coupled to an asset that is to be tracked and monitored (See Col. 12 lns 63-67). The tag (400) includes a processing device (420), memory (410), a transceiver (450) and other electronic components. In addition, a variety of sensors (442, 444, 446 and 448) may be configured with the tag (400) and may be considered as components of the tag (400) (see Col. 13 lns 9-26 and Col. 14 lns 57-62). Therefore it would have been obvious to one of ordinary skill in the art to incorporate the different embodiment of Lareau into the first embodiment of Lareau to store the store the information so that the asset being tracked can be easily identified when read.

Furthermore, various sensor parameters are stored in the memory (410) to help operate the sensors, wherein the parameters can include threshold limits. The sensors can monitor a variety of parameters, including temperature and electromagnetic radiation, but does not specifically disclose measurement of reception strength. However, signal strength is a form of electromagnetic radiation. Blesode discloses *Tag Location Monitor* that teaches a system that relates to a tag location system for tracking the location of items marked with a tag, wherein the system comprises one or more monitors (15) and one or more tags (13) on an object (19). Each individual monitor (15) can get a rough idea of how far away a particular tag (13) is by the strength of the received radio signal (21) (See Col. 6 lns 23-29). Therefore, it would have been obvious

to one of ordinary skill in the art to incorporate the teachings of Blesode into the system of Lareau to determine the position of the tag based on signal strength, as an alternative to the sensor parameters of Lareau.

Furthermore, claimed second responder that responds with information Y of the source IC tag stored in the memory to the interrogator, wherein relative positions of multiple IC tags are recognized from the information X and the information Y collected via the interrogator is met by the system of Lareau wherein upon a command from the RMS, the data, such as the sensor readings and threshold exceedances can be communicated by to the RMS to determine location of the tags (400) (See col. 15 lns 52-59).

Regarding Claim 3, the claim is interpreted and rejected as claim 1 stated above. In addition, Lareau discloses a system wherein the size of the network of tags is limited only by the number and spacing of the tags in the network. Provided there are enough intermediate tags to relay the signals, there is no maximum distance a destination tag must be from the RMS (150) (See Col. 8 lns 7-19). Because of that, as more intermediate tags and RMS's are present, the signals will not be weakened due to the distance between the tags.

Regarding Claim 4, Lareau discloses a system wherein the monitoring system (100) can be implemented in the storage facility (70). The storage facility (70) could contain hundreds or thousands of assets dispersed throughout the facility and that the system is designed to facilitate the most complex layouts of the storage facility (70) (See col. 6 lns 4-18).

Regarding claim 5, Lareau discloses a system wherein the RMS (150) can transmit a downstream communication to the destination tag (110) wherein the downstream communication is relayed from a first tag to a second tag and so on (see col. 7 lns 17-30).

Regarding Claim 6, Lareau discloses a system wherein the tag can reply with upstream communication to the RMS (150) (see col. 7 lns 17-30).

Regarding Claim 7, the claim is interpreted and rejected as claim 1 stated above.

Regarding Claims 8 and 9, the combination of Lareau and Bledsoe do not specifically disclose a system wherein the probe signals are Omni-directional prorogation media, and wherein the probe signals become attenuated progressively with distance. Rather, the RMS (150) can transmit a downstream communication to the destination tag (110) wherein the downstream communication is relayed from a first tag to a second tag and so on (see col. 7 lns 17-30). However, as long as the system performs its desired functionality to determine the location of the tags, one ordinary skilled artisan

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lareau et al. [**first embodiment**], Lareau et al. [**different embodiment**] and Bledsoe and further in view of Lastinger et al. (US 2003/0030568).

Regarding Claim 2, the combination of Lareau and Bledsoe do not specifically discloses wherein any of the combinations having one side of information in common are joined so that locations and arrangements order of the IC tags are specified.

However, Lastinger discloses *Wireless Identification Systems And Protocols* that teaches a system comprising one or more tags (130) and one or more locators (110,120) and one or more monitors (140). Locators (110,120) serve the function of broadcasting transmissions, including location information, in an area to be monitored. Tags (130) serve the purpose of receiving information broadcast from the locators (110,120) and broadcasting their own transmissions including the location identification information received from the locators (110,120). Monitors (140) serve the purpose of receiving broadcasts from tags (130) or other transmit devices such as locators (110, 120). Each locator has a zone (111,121) for which it is to broadcast a unique locator ID associated therewith. If a tag is present in a zone (111) or zone (121) the tag receives the locator broadcast from each respective locator. If tag falls in an area of overlap of two or more zones, one or more messages may include both locator IDs for respective locators (110 and 120). In this manner, processor (150) can locate tag with increase accuracy because of the limited area of overlap between zone one and zone two (see paras [0026 - 0038]). Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Lastinger into the system(s) of Lareau and Bledsoe so that accurately determine the location of a tag when they overlap zones

Response to Arguments

5. In the remarks filed 10/14/2008, applicant presents the following arguments:

1) Arguments regarding claim 1, applicant argues that LAREAU teaches a system wherein the RMS reads out coordinate location for monitoring an absolute location of the IC tag and that the system of LAREAU does not teach or suggest determining a location of an IC tag relative to other IC tags.

Applicant also argues that the the LAREAU system fails to teach (or suggest) a transmitter for sending probe signals to other IC tags when own information X is specified by an interrogator.

Applicant argues that the LAREAU does not teach or suggest a second responder that responds with information Y of a source IC source tag stored in the memory to the interrogator in response to a readout command. Moreover, applicant argues that the LAREAU does not teach two distinct communication areas and in particular, a communication area that is smaller than a communication area A in which an IC tag sends out probe signals to adjacent IC tags.

Furthermore, applicant argues that the BLEDSOE reference fails to teach that signal strength is that of a probe signal.

2) Arguments regarding claim 2, applicant argues that the system of LAREAU does not obtain all possible combinations of the information X and information Y. Applicant argues that the LASTINGER reference does not cure the deficiencies of the vicinity of the transmitter. More particularly, applicant argues that the LASTINER reference does not teach two distinct communication areas with respect to a single interrogator-IC pair.

Applicant also argues that LASTINGER does not teach a communication area that is determined based on an IC tag.

6. **RESPONSE**

1) With regards to arguments regarding claim 1, LAREAU does teach that an absolute location for each asset can be stored in the tag. However, LAREAU also discloses that the ***relative position*** of each tag in the network could be calculated. An absolute location ***can*** also be established for each asset and can be stored. This would suggest that there are multiple ways to determine location of the tags. In addition, applicant claimed "wherein relative position of said multiple IC tags recognized from the information X and the information Y collected via the interrogator". Even if the RMS (150) determines the absolute location for each tag, the location is still relative to the RMS (150), thus meeting claimed limitation.

In addition, as stated above in the rejection to claim 1, the system (100) facilitates communication from the tag (110) to the RMS (150) only after the RMS (150) has requested a communication (See Col. 7 lns 3-7) wherein the tag (110) inherently incorporates a responder means, since the tag (110) communicates with the RMS (150) after communication has been requested. Furthermore, Lareau discloses a system wherein upon a command from the RMS, the data; such as the sensor readings and threshold exceedances can be communicated back to the RMS to determine location of

the tags (400) (See col. 15 lns 52-59). This would suggest that the tags responds back to the RMS (150), thereby meeting the claimed limitation.

Furthermore, from the illustrations of figure 2, examiner interprets the figure as the RMS (150) communication with the tags (110,120,130) in an area A. The tags communicate with each other in an area B and as shown in figure 2, area B, wherein the tags communicates with each other is less than area A. Area being building, such as a cargo hold, wherein area B being the space within the cargo hold wherein the tags attached to the assets (cargo). Therefore, Area A is greater than Area B as shown in figure 2.

In addition, as stated above in the rejection to claim 1, LAREAU does not specifically disclose a storage that stores information by the interrogator in the memory when reception strength of said probe signal is more than a predetermined level. Rather, LAREAU discloses that the parameters are stored in the memory (410) to help operate the sensors, wherein the parameters can include threshold limits. The sensors can monitor a variety of parameters, including temperature and electromagnetic radiation. BLEDSOE was used to meet the deficiency of LAREAU wherein the system of BLEDSOE comprises an individual monitor (15) and a plurality of tags (13) wherein the individual monitor (15) can get a rough idea of how far away a particular tag (13) is by the strength of the received radio signal (21) (See Col. 6 lns 23-29), thereby meeting the claimed limitation. Therefore, the arguments presented are not persuasive and the argument to claim 1 stands.

2) With regards to arguments regarding claim 2, as stated above in the rejection to claim 2, Examiner shows that the LAREAU reference does not specifically disclose the claimed limitation wherein any of the combinations having one side of information in common are joined so that locations and arrangements order of the IC tags are specified. LASTINGER was used to address that limitation. LASTINGER discloses a system comprising system comprising one or more tags (130) and one or more locators (110,120) and one or more monitors (140). Locators (110,120) serve the function of broadcasting transmissions, including location information, in an area to be monitored. Tags (130) serve the purpose of receiving information broadcast from the locators (110,120) and broadcasting their own transmissions including the location identification information received from the locators (110,120). Monitors (140) serve the purpose of receiving broadcasts from tags (130) or other transmit devices such as locators (110, 120). Each locator has a zone (111,121) for which it is to broadcast a unique locator ID associated therewith. If a tag is present in a zone (111) or zone (121) the tag receives the locator broadcast from each respective locator. If tag falls in an area of overlap of two or more zones, one or more messages may include both locator IDs for respective locators (110 and 120). In this manner, processor (150) can locate tag with increase accuracy because of the limited area of overlap between zone one and zone two (see paras [0026 - 0038]). Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of LASTINGER into the system(s) of LAREAU and Bledsoe so that accurately determine the location of a tag when they overlap zones.

In addition, applicant does not claim distinct communication areas with respect to a single interrogator-IC tag. Therefore, the arguments presented are not persuasive and the rejection to claim 2 stands.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDNY LABBEES whose telephone number is (571)272-2793. The examiner can normally be reached on M-F: 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George J. Bugg can be reached on (571) 272-2998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Edny Labbees
1/2/2009

/George A Bugg/
Primary Examiner, Art Unit 2612